



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Maintenance Alerts

AC No. 43-16A

A large, stylized graphic of a wing or tail section, composed of several sharp, black, triangular shapes pointing downwards and to the right, positioned to the left of the word 'ALERTS'.

ALERTS

**ALERT NO. 241
AUGUST 1998**

**Improve Reliability-
Interchange Service
Experience**

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**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20590**

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience and thereby cooperate in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but which have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via Malfunction or Defect Reports. Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Designee Standardization Branch (AFS-640); P.O. Box 25082; Oklahoma City, OK 73125-5029.

AIRPLANES

AERONCA

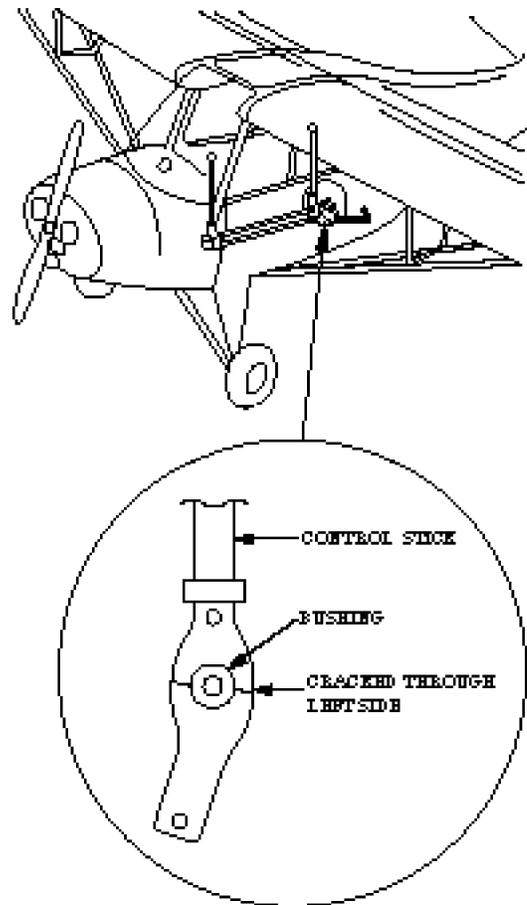
**Aeronca; Model 8BCM (Converted 7AC);
Champ; Cracked Control Stick Socket;
ATA 2701**

During the annual inspection, the technician discovered a visible horizontal crack on the left side of the aft control stick socket assembly (P/N 2-207). This area was given extra attention because the pilot reported excessive play in the aileron control.

The crack went through the casting in the bearing boss area. Also, there was a hairline crack on the right side of the aft control stick socket assembly and on the forward stick socket assembly. The submitter stated the metal casting was thinner in the bearing boss area. (Refer to the following illustration.)

The submitter suggested that the manufacturer make the metal casting thicker in the bearing boss area. This area deserves your attention during inspections.

Part total time-3,900 hours.



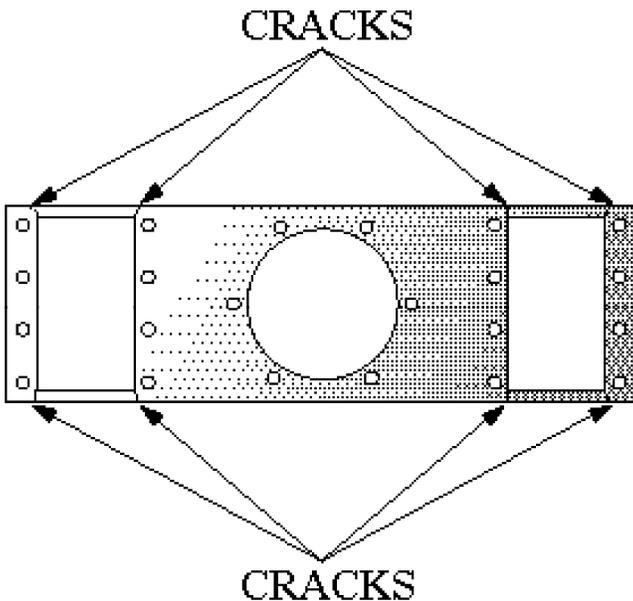
BEECH

Beech; Model 23; Musketeer; Cracks in Stabilator Main Spar; ATA 5511

This aircraft is used for flight training. During an inspection, maintenance personnel found cracks in the stabilator main spar adjacent to the fuselage hinge attach point. (See the following illustration.)

This area deserves your attention during inspections.

Part total time-6,403 hours.



Beech; Model 35K; Bonanza 35; Nosewheel Brace Assembly Corrosion; ATA 3220

Maintenance personnel found corrosion in the casting above the lower bearing in the nosewheel brace assembly (P/N 35-825110-4). The corrosion was extensive and penetrated completely through the brace assembly. The affected area was on the inside of the assembly.

Since a landing accident may occur due to metal failure, owners/operators (with like models) should inspect this area carefully.

Part total time-3,315 hours.

Beech; Model 58; Baron; Ball Bearing Defect; ATA 8300

While performing a random check for aircraft condition, maintenance personnel discovered the air-conditioner “tensioning” pulley bearing (P/N 2031 ZZ) had disintegrated. Only the belt held the pulley assembly (P/N 58-555013-7) in place. All of the ball bearings were missing, and only the inner and outer race remained.

Part total time-307.8 hours.

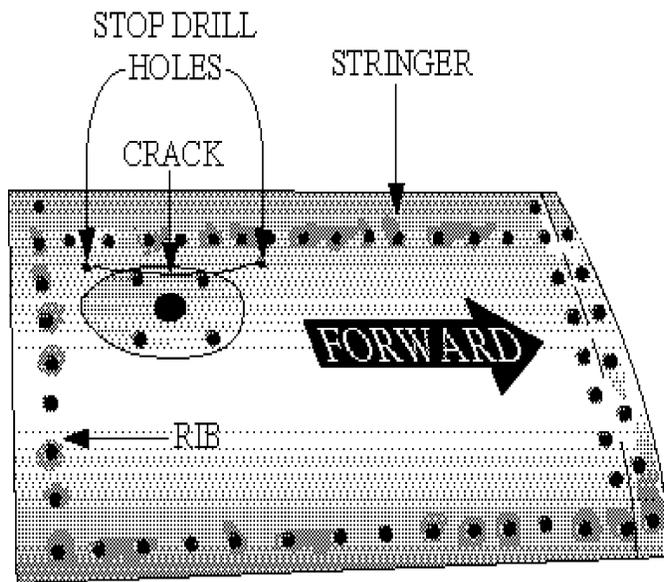
Beech; Model 60; Duke; Fuselage Structure Crack; ATA 5330

While installing avionics equipment, a crack was discovered on the upper fuselage skin.

The Long Range Navigation (LORAN) receiver was being removed and replaced with a Global Positioning System (GPS). When the LORAN antenna was removed from the top of the fuselage at fuselage station (FS) 200, a crack, approximately 4.25 inches long running parallel to the fuselage, was discovered. (Refer to the following illustration.) It appeared that the crack originated under the antenna base and migrated in both a forward and aft direction. Improper installation of the LORAN antenna was thought to have caused this defect. The antenna was installed using only a backing plate approximately the same size as the antenna base, with no doubler inside.

The aircraft manufacturer conducted complex, time consuming, and costly repair procedures on this area. This is a pressurized aircraft, and defects in the pressure vessel will endanger the occupants and the aircraft. Any equipment, especially antennas attached to the fuselage, should be inspected for proper installation and condition during scheduled inspections.

Part total time not reported.

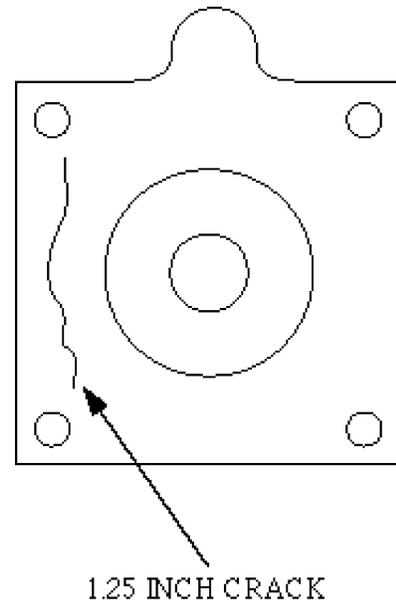


Beech; Model 65-B80; Queen Air; Cracked Air Pump Adapter; ATA 8300

Maintenance personnel performed a dye-penetrant inspection on the air pump adapter (P/N LW12540). From experience, the technician knew that cracks can develop in the area of the flange attach point holes. As the technician suspected, the inspection revealed a crack in the area of the flange which attaches the part to the engine accessory case. (Refer to the following illustration.)

The submitter has a fleet of seventeen similar model aircraft. This defect is common in a fleet of this size, with at least eight occurrences a year.

Part total time-763 hours.



Beech; Model E90; King Air; Unbalanced Main Wheel; ATA 3244

The main gear tires (Goodyear) on three fleet King Airs suddenly became unbalanced causing vibrations during ground operations. Closer investigation revealed that the rubber balance patches on all three aircraft had delaminated and fallen off.

These aircraft were operated within normal limits. Their total landings ranged from 92 to 331, and their time in service ranged from approximately 2 to 4 months.

Beech; Model 95-C55; Baron; Broken Brace Assembly; ATA 3200

Maintenance discovered a broken fork (fitting) which attaches the retraction rod to the drag brace (P/N 002-820016-31). Closer inspection revealed that a previous repair was made to the area. An older-style fitting had been welded to the brace assembly.

Part total time-5,952 hours.

Beech; Model 99; Airliner; Unbalanced Nosewheel; ATA 3244

This problem has occurred at least five times to different aircraft in the fleet, always involving Goodyear Flight Custom II 6:50-10 6PR tubeless tire.

After reports of nosewheel shimmy, an inspection revealed a number of loose or missing balance patches caused by adhesive failure. All of the tires still had "good tread life."

Part total time-varied.

Beech; Model 200; King Air; Cracked Fairing; ATA 5350

An inspection revealed a .75 inch crack near a rivet which attaches the engine nacelle trailing edge fairing to the inboard flap.

The submitter states that the crack would not have resulted in any more damage, but since it is part of a control surface, it was treated as a major repair.

Part total time-8,093 hours.

Beech; Model 200; Super King Air; Flap Bracket Cracked; ATA 5753

During a routine inspection, a .5 inch crack was discovered where the bracket for the flap interconnect attaches on the right outboard flap.

It appeared that the rod-end for the interconnect was loose where it attached to the bracket. This allowed enough play for the rod-end to strike the base of the bracket, causing it to crack.

Part total time-8,093 hours.

Beech/Raytheon; Model 1000; Hawker Jet; Wire Bundle Chafing; ATA 3340

After a report of an inoperative right landing light, an inspection revealed that the light's wire bundle had chafed against the forward

ventral tank transfer valve assembly. The wire bundle also showed signs of burnt insulation.

The specific location of the damage was between the wire bung "DF" and the connector "JA-D9." Also, the technician removed the forward ventral tank and discovered a chafed fuel quantity wire.

Part total time-632 hours.

CESSNA**Cessna; Model 152; Aerobat; In-Flight Fire; ATA 2810**

During flight, a fire began at the left wing fuel vent overboard drain. After a short time, the fire extinguished itself, and the pilot made a safe landing.

Maintenance personnel determined the fire was caused by a short circuit in the fuel quantity sending unit (P/N C668002-0301) power wire (number EB-5). The power wire was shorted to ground at the wing root rib. No cause for the short circuit was given.

Part total time-8,490 hours.

Cessna; Model 170B; Abnormal Braking Action; ATA 3242

During a landing approach, full-rudder deflection was used in both directions to avoid a spin. When the main landing gear contacted the landing surface (short-field landing), the aircraft nosed over.

It was determined that both main gear brakes were locked. Two marks were found on the firewall insulation which matched the position of the brake master cylinder parking brake levers. (The parking brake levers are normally installed facing across the airframe.) When full-rudder deflection was applied, the levers rotated forward, the lock plate contacted the firewall, and the brakes locked. Most of the originally installed brake systems (Scott, Goodyear, and Gerdes) are subject to this problem.

It was suggested that later model master cylinders, which have the parking brake bar extending outside of the outer diameter of the cylinder, be installed. Also, the brake system may be modified in accordance with Cessna Service Letter (SL) 172-170-18, dated October 30, 1959.

Part total time not reported.

Cessna; Model 172P; Skyhawk; Defective Vacuum Hoses; ATA 3710

While troubleshooting the cause of a vacuum system leak, several hoses were found defective.

The vacuum hoses appeared to be in good condition until they were moved. There were cracks in the outer hose coating, and the interior hose lining was badly deteriorated. Even though a hose installation appears serviceable during an inspection, moving or changing the routing of a hose may cause the interior hose lining to break, and debris from the hose may enter the vacuum pump. In this case, it was believed these hoses were installed as original equipment. It seems obvious that these hoses exceeded their life expectancy.

Part total time-7,211 hours.

Cessna; Model 182F; Skylane; Control Yoke Failure; ATA 2701

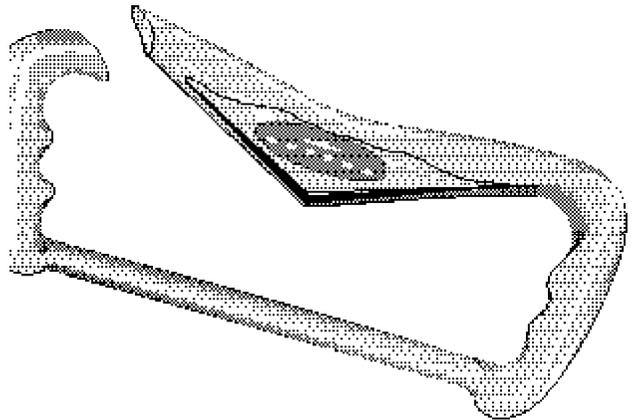
During landing, the control yoke broke. A safe landing was made using the remainder of the yoke.

The control yoke failed at the upper left corner. (Refer to the following illustration.) The control yoke was installed as original equipment in 1963. Over the years, the effects of sunlight and temperature caused the plastic material to deteriorate. The first signs of deterioration may be a dull appearance, small

spider web surface cracks (crazing), and/or chips, dents, nicks, or surface exfoliation.

The control yoke(s) should be inspected for these conditions at every opportunity.

Part total time-2,800 hours.



Cessna; Model 182P; Skylane; Propeller Spinner Bulkhead Cracks; ATA 6113

During an annual inspection, the propeller spinner bulkhead was found cracked.

Five of the six spinner attachment points were cracked around the fastener holes. Two of the attachment points were completely broken and were no longer supporting the spinner. Several of the six fastener holes were elongated.

The aircraft maintenance records revealed this part failed twice before this incident. It was speculated that the attachment fasteners were overtightened. Also, engine and propeller vibration may have contributed to this failure.

Part total time-401 hours.

Cessna; Model 182RG; Skylane; Rudder Control Failure; ATA 2720

The rudder bar nosewheel steering bracket was found broken during a scheduled inspection.

The fitting that is welded to the right rudder bar (P/N 2260114-2), which controls nosewheel steering and rudder trim, had broken at the weld attachment. It appeared that the weld did not have adequate penetration of the base metal when it was assembled. The fitting was located behind the center console and was difficult to inspect.

Part total time-3,147 hours.

Cessna; Model 208B; Caravan; Engine Overspeed Governor Failure; ATA 6122

After removing the engine (Pratt & Whitney, Model PT6-114) for overhaul, the overspeed governor was removed and installed on a "loaner" engine.

It was found that the propeller shaft on the "loaner" engine would not rotate. The overspeed governor (Woodward P/N D210507) was removed, and a small ball bearing came out of the oil port. When the system was flushed, five additional ball bearings were found in the oil system, and two ball bearings remained inside the governor. The governor was disassembled, and the bearing cage and outer race were found severely damaged.

Part total time-5,992 hours.

Cessna; Model 414; Chancellor; Horizontal Stabilizer Attachment; ATA 5510

During an annual inspection, an excessive amount of movement was noted when the right horizontal stabilizer was moved up and down.

An investigation revealed that a bolt (P/N NAS1306-4) was missing from the right forward horizontal stabilizer attachment point. The bolt was found undamaged inside

the stabilizer aft of the front spar. The nut (P/N MS21044N6) was also found in the same area and was in two pieces.

It was speculated that the nut was overtorqued and vibrated out of the attachment hole. The available evidence indicated the bolt had been missing for some time.

Part total time-2,693 hours.

Cessna; Model 550; Citation; Hydraulic System Failure; ATA 2910

The hydraulic system low-level light illuminated during flight. A safe landing was made, and all the necessary systems functioned properly.

When the left engine cowling was removed, the hydraulic pump pressure hose (P/N CM 35740460B000S) was found leaking. The date stamp on this hose indicated it was manufactured in August 1991.

All operators should adhere to the aircraft and hose manufacturer's recommendations for hose replacement.

Part total time-3,000 hours.

Cessna; Model 560; Citation; Cabin Entry Door Failure; ATA 5210

After a flight, the cabin entry door (P/N 5511230-63) would not open, and the pilot had to use the emergency-exit window to exit the aircraft.

The cabin entry door could not be opened from outside the aircraft. The door was disassembled, and the aft latch pin bellcrank bracket (P/N 5511031-120) was found broken. This caused the aft door latch pins to remain extended and prevented the door from being opened.

Part total time-2,903 hours.

PIPER

Piper; Model PA-23-160; Apache; Engine Starter Failure; ATA 2435

This aircraft had been modified by the installation of two 180 horsepower engines. During a multiengine check ride, the left engine was shut down in flight and could not be restarted. The landing gear was manually extended. During the short final approach, the examiner pilot could not see the green lights indicating the gear was down, and a single-engine go-around was elected. The aircraft crashed approximately 1.5 miles from the runway.

During the accident investigation, it was found that the left engine starter electrical cable (P/N 14226-15) was clamped to an engine mount. This caused the starter electrical cable insulation to wear until the cable was penetrated. The engine starter was still functional; however, electrical power was terminated.

Maintenance records show that in October 1996, a new starter was installed; in May 1997, the starter drive was replaced; and in March, April, and May 1998, the left engine was hard to start.

Part total time not reported.

Piper; Model PA-24; Comanche; ATA 7810

Just after takeoff, smoke filled the cockpit, and a safe emergency landing was made. After the landing touchdown and engine power reduction, the smoke cleared from the cockpit.

When the engine cowling was removed, it was discovered that the exhaust stack (P/N 21092-08) was disconnected from the muffler. The exhaust stack was broken aft of the number 3 riser adjacent to the carburetor heat shroud weld attachment. Since the muffler and exhaust stack assembly were not supported, the submitter speculated this may have caused the defect.

During annual inspections, the entire engine exhaust should receive a comprehensive inspection

Part total time-4,426 hours.

Piper; Model PA-28-140; Cherokee; Defective Seat Tracks; ATA 5347

During an annual inspection, maintenance personnel discovered the seat rails (P/N 62557-04) were severely corroded.

The seat rails metal exhibited signs of exfoliation and delamination, and corrosion dissolved some of the rivets used to attach the seat rails to the structure. This area is susceptible to spills such as coffee, soft drinks, and other materials which may accelerate the corrosion process.

It was speculated that the metal alloys used for the seat rails may not have been correct. It is recommended that the seat rails be given special attention during scheduled inspections.

Part total time-3,379 hours.

Piper; Model PA-28-140; Cherokee; Wing Spar Damage; ATA 5711

During an annual inspection, maintenance personnel found a crack in the wing spar assembly.

The location of the crack was approximately 6 inches outboard of the wing attachment to the fuselage. The crack was about 3 inches long and was on the rear foot of the "I-beam" spar assembly (P/N 65601-10).

Evidence indicated corrosion caused the crack and produced exfoliation of the metal. This area deserves ones full attention during scheduled inspections.

Part total time-3,379 hours.

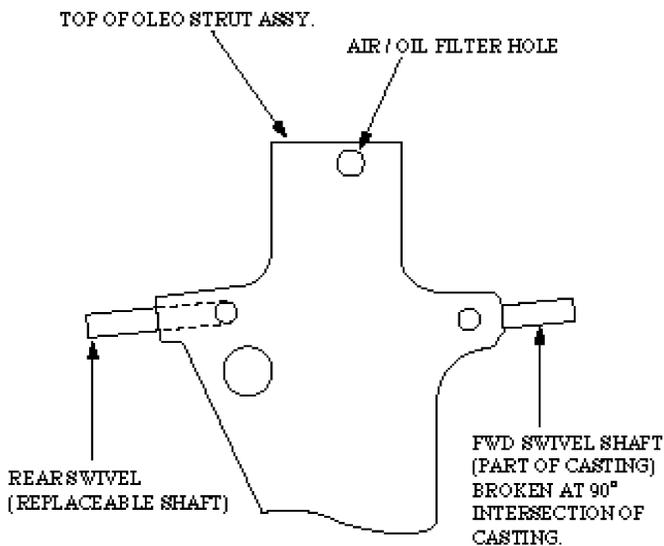
Piper; Model PA-28-R200; Arrow; Broken Landing Gear Pivot; ATA 3213

While lubricating the main landing gear, the technician discovered a broken swivel shaft on the left main gear.

The forward swivel shaft was broken at a 90-degree angle where it entered the oleo strut housing (P/N 67035). (Refer to the following illustration.)

The cause of this defect was believed to be hard landings and/or a concentration of stress at the junction of the swivel shaft and the strut housing. Failure to find this problem could have resulted in a landing accident.

Part total time not reported.



Piper; Model PA-28RT-201T; Turbo Arrow; Defective Nose Landing Gear Part; ATA 3230

After the nose landing gear downlock spring failed, a new part was drawn from stock and installed.

Following the installation of the new spring, an operational test of the landing gear system was conducted. The new downlock spring

(P/N 67189-00) broke during the first gear cycle.

This report did not describe the nature of this failure, nor the age and origin of the new spring.

Part total time-0 hours.

Piper; Model PA-31-310C; Navajo; Hydraulic Pump Failure; ATA 2913

It was reported that the landing gear retracted very slowly after takeoff.

During an initial investigation, the right engine hydraulic pump was found inoperative. When the pump was removed, a broken drive gear was discovered. The drive gear key-way and a section of the gear were found in the outlet section of the hydraulic pump head. There was no evidence of pump seizure, and the cause of this defect was not determined.

Part total time-800 hours.

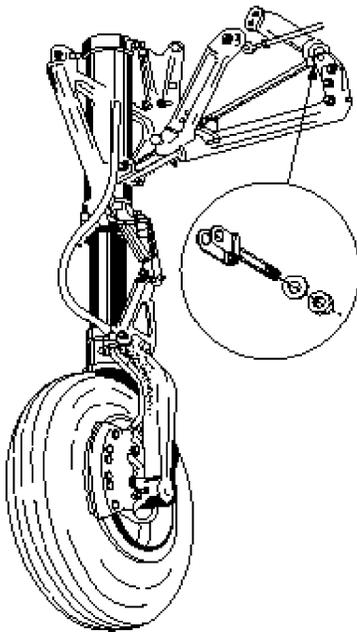
Piper; Model PA-31-350; Chieftain; Landing Gear Retraction Failure; ATA 3230

When the landing gear handle was selected to the "up" position after takeoff, the left main gear did not retract. The landing gear was extended, and a safe landing was made.

An inspection disclosed a broken left main gear lock rod attachment fork (P/N 41789-00). The rod attachment fork broke at approximately the midpoint of the shank. (Refer to the following illustration.)

This defect was also found on one other like aircraft from this fleet. Maintenance personnel should inspect the rod attachment fork for general condition and for a bent or broken shank at every opportunity. A 1,000-hour inspection interval was suggested.

Part total time not reported.



Piper; Model PA-46-310P; Malibu; Cracked Engine Mount; ATA 7120

During an annual inspection, it was discovered that an engine mount was cracked.

The engine mount (P/N 84010-02) crack was located at the nose landing gear actuator attachment point.

It was speculated that the nose gear design requires the actuator to be positioned in a manner which imposes stress on the engine mount. It would be wise to check this area at every opportunity.

Part total time-1,664 hours.

Piper; Model PA-46-350P; Malibu; Fuel Leak; ATA 2822

The owner noticed a fuel stain on the lower skin of the aircraft and asked maintenance personnel to investigate the cause.

The engine-driven fuel pump (P/N RG908024A) seal was extruded from between the pump

mating flanges. This was the only leak source. A previous maintenance record entry indicated that the screws holding the pump flanges together had been torqued in accordance with Textron Lycoming Service Bulletin (SB) 529. All of the screws were safety wired; however, they were only "finger tight." Apparently, the screws were loose which caused the seal to migrate.

Part total time-17 hours.

Piper; Model PA-46-350P; Malibu; Wing Structure Crack; ATA 5730

During an annual inspection, maintenance personnel found a crack in the lower skin of the left wing.

The crack was approximately .75 inch long, and it appeared to originate at the front corner of the left main landing gear door. Maintenance personnel had installed a reinforcement patch in accordance with a Piper Service Bulletin. The crack was located approximately .125 inch aft of the patch and ran parallel to the wing spar reinforcement.

This area should be closely checked during inspections and maintenance.

Part total time-1,294 hours.

HELICOPTERS

BELL

Bell; Model 47G-5; Defective Tail Rotor; ATA 6410

After new tail rotor blades were installed, the pilot reported a severe vibration during flight, and he made a safe landing. (This helicopter is used for agricultural-application work.)

An inspection of the tail rotor blade assembly (P/N HAC-47-3) disclosed that one blade was swollen at the outboard end of the erosion

guard. Approximately 75 percent of the blade was delaminated. Evidently, this blade was improperly manufactured.

The submitter did not offer any other cause for this defect.

Part total time-1 hour.

Bell; Model 407 Series; Information Update; ATA 5551

In the July 1998 issue of this publication an article described a problem of in-flight separation of the horizontal stabilizer slats.

After the article was published, Bell Helicopter Textron issued Information Letter (IL) 407-98-16, to all owners and operators of 407-series helicopters.

“During visual preflight checks, each owner and operator should pay particular attention to the horizontal stabilizer slat for cracked brackets or loose slats. One should place continued emphasis on the importance of the inspections prescribed in the flight and maintenance manuals for the horizontal stabilizer and slat assemblies. Any cracked brackets should be reported to Bell Helicopter, Product Support Engineering, telephone 1-800-243-6407, direct (514) 971-6407, and FAX (514) 433-0272.”

EUROCOPTER

Eurocopter; Model 341G; Gazelle; Transmission Fitting Crack; ATA 6310

After medium frequency vibration was reported, the technician conducted an operational test and discovered a crack in the main rotor transmission fitting.

The transmission input pinion flange's flexible coupling (P/N 341A35-C140-01) was cracked at the aft shim laminate. The flexible coupling is

secured to the flange with three coupling attachment bolts (P/N 341A35-0148-21), and the bolts are saftied with cotter pins. Due to improper torquing, two of the bolts were loose and rotated freely.

The flexible coupling face is not easily seen during daily inspections; therefore, extra effort is necessary for a proper inspection.

Part total time not reported.

ROBINSON

Robinson; Model R-22; Mariner; Correction of Previous Information; No ATA

An article was printed in the June 1998 edition of this publication dealing with the manufacturer's 10-year inspection/limited overhaul requirement. The following information corrects the last paragraph of that article.

The airframe inspection required by paragraph 2.640 of the manufacturer's inspection program is required by Title 14 of the Code of Federal Regulations (14 CFR) part 91, section 91.409. However, the manufacturer's requirement to overhaul components at 10 years or 2,000 hours time in service is not a Federal Aviation Administration (FAA) requirement. Components found during inspection which do not meet the applicable standards for airworthiness require overhaul, repair, or replacement.

We regret any inconvenience this error may have caused.

SIKORSKY

Sikorsky; Model S-76C; Spirit; Instrument Indication Anomaly; ATA 7700

During flight, the number 1 “engine out” warning light and tone came on momentarily.

At the same time, the master caution light illuminated momentarily.

The flightcrew selected "recall" from the engine integrated instrument display system (IIDS) and found that the generator fail light caused the master caution indication. The generator interlock relay is designed to drop the generator off line whenever there is an engine failure.

The helicopter manufacturer informed this operator that other companies using IIDS-equipped helicopters have experienced this same anomaly. In all instances, the system cleared itself after a few seconds.

Part total time not reported.

AMATEUR, EXPERIMENTAL, AND SPORT AIRCRAFT

BOMBARDIER

**Bombardier; Model CL-601; Fuel Leak;
ATA 2820**

After returning from a flight, the pilot noticed a strong odor of fuel.

An investigation revealed that a flexible fuel line (P/N AE7010000H1700) was ruptured. The fuel line ran from the left pylon to the left main landing gear wheel well. This caused fuel to vent overboard. The fuel collected in the tailcone area and created a very hazardous condition.

It is suggested that all flexible plumbing be checked frequently for condition and serviceability.

Part total time-8,204 hours.

ROTAX

Rotax; Model 582; Engine Failure; ATA 8520

This engine was installed in an amateur-built aircraft after being in storage for 4 years, and the engine had been removed from the packing crate for 2 of the 4 years. After 2 hours of the initial flight, the engine seized, and the pilot made a safe emergency landing.

An inspection disclosed signs of corrosion on the gear box output shaft. The technician disassembled the engine and discovered the rear cylinder piston connecting rod was detached from the crankshaft journal. Apparently, loss of lubrication caused the detachment. The connecting rod bearing was disintegrated, the rod was discolored from excessive heat, and the piston was seized in the cylinder.

The submitter stated that some aircraft kit suppliers do not have an established procedure for servicing engines that have been stored for a long time. It was suggested that engine manufacturers supply a recommended storage procedure for each engine, and that aircraft kit manufacturers adhere to the recommended storage procedure.

Before buying an aircraft kit which includes the engine, it would be prudent to inquire about the age, length of storage, and preservation procedures for the engine.

Engine total time-2 hours.

STODDARD-HAMILTON

Stoddard-Hamilton; Model RG-I; Engine Power Loss; ATA 7320

During flight, the engine began to lose power and stopped. An off-airport landing was made without injury or damage.

An investigation disclosed the engine fuel servo screen was blocked. The blockage was caused by very fine fiberglass particles. The submitter recommended removing the fuel servo screen after each 25 hours of operation

for inspection and cleaning. After this procedure, an operational test should be conducted to confirm full fuel flow to the engine.

Part total time-86 hours.

VANS

Vans; Model RV-6; Loss of Rudder Control; ATA 2720

An aircraft accident occurred when the left rudder pedal broke and caused the loss of rudder control.

The rudder pedal (P/N WD 607) broke at the point where it was welded to the cross piece attachment. The rudder pedal and cross piece were factory assembled. The National Transportation Safety Board (NTSB) analyzed the broken parts and determined the failure was caused by a fatigue crack which originated on the rear outside portion of the torque tube.

Part total time-430 hours.

POWERPLANTS AND PROPELLERS

ALLISON

Allison; Model 250-B17F/2; Oil Pump Case Damage; ATA 7261

A repair station received an engine for overhaul with a report of low oil pressure and metal in the oil.

Maintenance personnel disassembled the engine and found that the idler gear on the pressure side of the oil pump (P/N 6876689) had worn into the pressure pump body. Approximately .375 inch of the pressure pump body was worn away. As the pump body wore,

the engine oil pressure gradually decreased. The submitter gave no cause for this defect.

Part total time-11 hours.

ROTAX

Rotax; Model 912-A3; Connecting Rod Failure; ATA 8520

This engine was installed in a Diamond, Model DA-20A1 aircraft. The engine failed during flight, and power could not be restored. An off-airport landing was made.

During an inspection, maintenance personnel found the number 2 connecting rod seized and broken at the crankshaft journal. The piston broke at the wrist pin hole and seized in the cylinder. Pieces of the push rod "O-rings" were found in the oil scavenge line fitting at the bottom of the engine case. The damage occurred when debris from the push rod "O-rings" obstructed the oil scavenge line and caused the loss of engine oil pressure.

The submitter suggested that the manufacturer incorporate an oil suction screen in the scavenge line fitting.

Part total time-2,325 hours.

AIR NOTES

AIRWORTHINESS DIRECTIVES (AD'S) ISSUED IN JUNE 1998

98-11-31 British Aerospace 3101 airplanes; requires modifying autopilot elevator electric system relays.

98-12-01 Pilatus PC-6 series airplanes; requires modifying fuel system.

98-12-02 SOCATA Groupe Aerospatiale Model TBM 700 airplanes; requires inspecting elevator trim tab fittings.

- 98-12-03** Alexander Schleicher Segelflugzeugbau Models ASW-19 and ASK-21 sailplanes; requires modifying rudder surface panels, replacing airbrake bellcrank, and modifying rear canopy hinge structure.
- 98-12-04** Glaser-Dirks DG-500M gliders; requires installing a rudder gap seal and modifying cooling liquid reservoir mount.
- 98-12-06** Stemme GmbH & Co KG Models S10 and SA10-V sailplanes; requires replacing fuel filter.
- 98-12-09** AlliedSignal TPE331 series turboprop engines; requires removal of a suspect fuel manifold assembly.
- 98-12-10** Avions Mudry et Cie CAP 10B airplanes; requires installing an inspection opening in wing.
- 98-12-11** British Aerospace Jetstream 3101 airplanes; requires modifying emergency hydraulic hand-pump.
- 98-12-13** Piaggio P-180 airplanes; requires modifying low pitch stop switch support.
- 98-12-14** Aermacchi S.p.A. S.205 and S.208 series airplanes; requires correction of flap cable pulley brackets.
- 98-12-23** British Aerospace H.P. 137 Jetstream Mk.1, 3101, 3201, 200 series; requires replacing windshield wiper arm attachment bolts.
- 98-13-03** British Aerospace Model 137 Mk1 and Jetstream 200 and 3101 models; requires inspecting main landing gear hinge fittings, support angles, attachment bolts.
- 98-13-04** Glaser-Dirks DG-100 and DG-400 gliders; requires inspecting airbrakes.
- 98-13-05** Alexander Schleicher Segelflugzeugbau Model AS-K13 sailplanes; requires inspecting main spar fitting.

- 98-13-06** Glaser-Dirks DG-400 gliders; requires replacing bungees on left engine restraining cable.
- 98-13-07** Piaggio P-180 airplanes; requires accomplishing a leakage check of lavatory hoses.
- 98-13-08** Pilatus PC-12 airplanes; requires replacing and rerouting power return cables on generators.
- 98-13-09** Aermacchi S.p.A. S.260 series airplanes; requires marking airspeed indicator.
- 98-13-11** Raytheon 1900D airplanes; requires modifying airplane by incorporating ground fine switch installation kit.
- 98-14-03** AlliedSignal KT 76A Air Traffic Control Transponders; requires replacing two resistor network modules with glass-coated modules.
- 98-14-07** Cessna 172R airplanes; requires modifying lower forward doorpost bulkhead by installing rivets.

SUSPECTED UNAPPROVED PART (SUP) SEMINAR

As announced in previous editions of the Alerts, the Designee Standardization Branch, AFS-640, is once again presenting the Suspected Unapproved Part (SUP) seminar. A schedule of the seminars and information for requesting a SUP seminar in your area can be found below.

Seminar dates will be announced in the Alerts, the Designee Update newsletter, and on the Internet under FedWorld.gov. You may access

the FedWorld BBS directly at (703) 321-3339. You may access the Alerts through the Internet, using the Regulatory Support Division, AFS-600, "HomePage" at the following address.

<http://www.mmac.jcabi.gov/afs/afs600>

The seminar will discuss the following:

1. Introduction to the policy of the Suspected Unapproved Part Program Office, AVR-20.
2. What is an approved part/unapproved part?
3. How can approved parts be produced?
4. What is a suspected unapproved part?
5. How is a suspected unapproved part reported in accordance with FAA Order 8120.10A, Suspected Unapproved Parts Program, and utilizing FAA Form 8120-11, Suspected Unapproved Parts Notification?
6. How do you determine the status of parts?
7. What is the procurement process?
8. How do you use the Internet and FedWorld to find a list of unapproved parts?

The cost of this 1-day, 8-hour seminar is \$60. The seminar may be used for the Inspection Authorization (IA) renewal training requirement specified in Title 14 of the Code of Federal Regulations (14 CFR) part 65, section 65.93(a)(4).

The seminar is open to the aviation industry. Anyone wishing to attend may telephone (405) 954-0138. Payment is required in advance by using VISA, MasterCard, or a check.

When scheduling attendance, please reference "AFS-75."

**SCHEDULE FOR
SUSPECTED UNAPPROVED PART (SUP)
SEMINARS**

<u>Seminar No.</u>	<u>1998</u>	<u>Location</u>
759808	Aug 5	Ft. Lauderdale, FL
759809	Sep 16	Springfield, IL
759901	Oct 21	Rochester, NY
759902	Nov 18	Wichita, KS

An ADDITIONAL SUP seminar will be conducted in Anniston/Oxford, AL on 8/18/98. You may register for the seminar by calling (405) 954-0138.

If you require an ADDITIONAL SUP seminar, please write to: FAA, ATTN: Elmer Hunter (AFS-640), P.O. Box 25082, Oklahoma City, OK 73125. Depending on manpower and the availability of AFS-640 personnel, the requests for additional SUP seminars may be authorized. The registration process is the same as that previously discussed in this article. If you have specific questions regarding an ADDITIONAL SUP seminar, please contact Elmer Hunter at (405) 954-4099.

CHANGES TO THIS PUBLICATION

We have created a new Internet web site which includes an electronic version of FAA Form 8010-4, Malfunction or Defect (M or D) Report. You may use the electronic version to send M or D reports to us. The web site also includes a search function for older copies of the Alerts. The address for this web site is:

<http://www.mmac.jcabi.gov/alerts/>

In the future, we will establish an E-Mail distribution system for the Alerts. When the system is in place, we will strongly urge you to use it. The system will save printing and mailing costs associated with delivering paper copies. If you switch to the E-Mail distribution system, please tell us by using the subscription form in the back of this publication, so we can delete your name from the paper copy distribution list. We will continue to print paper copies for those who do not have access to the Internet and E-Mail.

If you like the idea of receiving the Alerts via the E-Mail distribution system, please let us know, so we will know how many readers will take advantage of the system. You may contact

Phil Lomax by any of the means listed in the following article.

IF YOU WANT TO CONTACT US

If you want to contact the staff of this publication we welcome your comments, suggestions, and questions. Also, you may use any of the following means of communication to submit reports concerning aviation-related occurrences.

Editor: Phil Lomax
 Phone: (405) 954-6487
 FAX: (405) 954-4570 or (405) 954-4748

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AFS-600 HomePage Internet address:
<http://www.mmac.jccbi.gov/afs/afs600>

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Also, if you are receiving more than one copy of each edition, please contact Phil Lomax at (405) 954-6487.

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For your convenience, FAA Form 8010-4, Malfunction or Defect Report, will be printed in every issue of this publication. You may complete the form, fold, staple, and return it to the address printed on the form. (No postage is required.)

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4	PROPELLER				FAA DISTRICT OFFICE	
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Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location			
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Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number			
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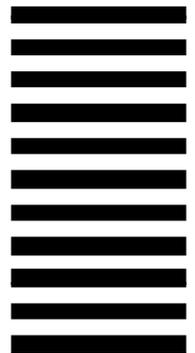
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